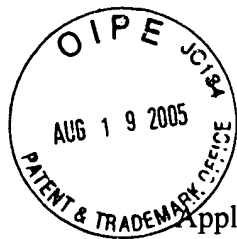


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## PATENTS



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/796,902  
Applicant : Li et al.  
Conf. No. : 1631  
Filed : March 9, 2004  
TC/A.U. : 1600/1615  
Examiner : Unknown  
Title : Microcapsules for Encapsulation of Bioactive Substances

Docket No. : 11287.105001 AST001  
Customer No. : 20786

Mail Stop Amendment  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

## TRANSMITTAL LETTER

Sir:

Applicants, through their attorneys and agents, submit the following for filing in the referenced application:

1. Information Disclosure Statement;
2. Form PTO-1449;
3. Non-U.S. Patent Cited References;
4. Certificate of Mailing; and,
5. Postcard.

No fees are believed to be due in connection with this submission. However, the Commissioner is authorized to charge any fees, should they be due, to Deposit Account No. 11-0980.

Respectfully submitted,

Date: August 17, 2005

KING & SPALDING LLP  
191 Peachtree Street  
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By: Madeline I. Johnston  
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 17, 2005.

Jennifer A. Williams



## PATENTS

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## INFORMATION DISCLOSURE STATEMENT

Sir:

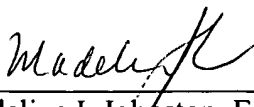
Applicants cite the information on the attached Form PTO-1449, "List of Information Disclosed by Applicant," pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Applicants have enclosed a copy of each foreign patent or patent application and non-patent referenced. Applicants have not enclosed copies of any cited U.S. patent or patent application publications.

The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

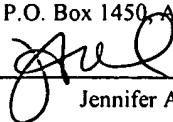
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Jennifer A. Williams



FORM PTO-1449, Adapted

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(Use several sheets if necessary)

ATTY. DOCKET NO.	SERIAL NO.	FILING DATE
11287.105001 AST001	10/796,902	March 9, 2004
APPLICANT	GROUP	
Li et al.	1615	

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4,673,566	06/16/87	Goosen et al.	424	424	
	AB	4,689,293	08/25/87	Goosen et al.	435	182	
	AC	4,798,786	01/17/89	Tice et al.	435	177	
	AD	4,806,355	02/21/89	Goosen et al.	424	424	
	AE	5,410,016	04/25/95	Hubbell et al.	528	354	
	AF	5,427,935	06/27/95	Wang et al.	435	178	
	AG	5,459,054	10/17/95	Skjak-Braek et al.	435	178	
	AH	5,529,914	06/25/96	Hubbell et al.	435	182	
	AI	5,573,934	11/12/96	Hubbell et al.	435	177	
	AJ	5,578,314	11/26/96	Cochrum et al.	424	424	
	AK	5,620,883	04/15/97	Shao et al.	435	174	
	AL	5,626,863	05/06/97	Hubbell et al.	424	426	
	AM	5,795,790	08/18/98	Schinstine et al.	435	382	
	AN	5,801,033	09/01/98	Hubbell et al.	435	182	

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	NAME	TRANSLATION YES NO.

**OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)**

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EXAMINER	DATE CONSIDERED
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FORM PTO-1449, Adapted

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<b>ATTY. DOCKET NO.</b> 11287.105001 AST001	<b>SERIAL NO.</b> 10/796,902	<b>FILING DATE</b> March 9, 2004
<b>APPLICANT</b> Li et al.		<b>GROUP</b> 1615

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AO	5,858,746	01/12/99	Hubbell et al.	435	177	
	AP	5,935,849	08/10/99	Schinstine et al.	435	325	
	AQ	6,060,582	05/09/00	Hubbell et al.	528	354	
	AR	6,558,698	05/06/03	Morrison et al.	424	451	

**FOREIGN PATENT DOCUMENTS**

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**OTHER REFERENCES** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	AS	Allen, Work et al. editors, "Laboratory Techniques in Biochemistry and Molecular Biology: Sequencing of Proteins and Peptides", The Netherlands, Elsevier Science, 1981, pgs. 139-141
	AT	Bartkowiak et al., "Alginate-Oligochitosan Microcapsules: A Mechanistic Study Relating Membrane and Capsules Properties to Reaction Conditions", Chem. Mat., 1999, 11(9), pgs. 2486-2492
	AU	Bartkowiak et al., "New Microcapsules Based on Oligoelectrolyte Complexation", Ann. Acad. Sci., 1999, 875, pgs. 36-45
	AV	Chang, "Artificial Cells with Emphasis on Bioencapsulation in Biotechnology", Biotechnol. Annu. Rev., 1995, 1, pgs. 267-295
	AW	Chang, "Semipermeable Microcapsules", Science, 1964, 146, pgs. 524-525
	AX	Chia et al., "Hepatocyte Encapsulations for Enhanced Cellular Functions", Tissue Eng., 2000, 6(5), pgs. 481-495
	AY	Chia et al., "Multi-Layered Microcapsules for Cell Encapsulation", Biomaterials, 2002, 23(3), pgs. 849-856
	AZ	Clayton et al., "The Transplantation of Encapsulated Islets of Langerhans into the Peritoneal-Cavity of the Biobreeding Rat", Transplant, 1992, 54(3), pgs. 558-560
	BA	Clayton et al., "The Effect of Capsule Composition on the Viability and Biocompatibility of Sodium Alginate Poly-L-Lysine Encapsulated Islets", Transplant. Proc., 1992, 24(3), pgs. 956

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BB	Dautzenberg et al., "Development of Cellulose Sulfate-Based Polyelectrolyte Complex Microcapsules for Medical Applications", Ann. Acad. Sci., 1999, 875, pgs. 46-63
BC	De Vos et al., "Effect of Alginate Composition on the Biocompatibility of Alginate-Polylysine Microcapsules", Biomaterials, 1997, 18, pgs. 273-278
BD	Dos Santos et al., "Relevance of Rheological Properties of Gel Beads for their Mechanical Stability in Bioreactors", Biotechnol. Bioeng., 1997, 56(5), pgs. 517-529
BE	Fan et al., "Reversal of Diabetes in BB Rats by Transplantation of Encapsulated Pancreatic-Islets", Diabetes, 1990, 39(4), pgs. 519-522
BF	Fraenkel-Conrat et al., "Esterification of Proteins with Alcohols of Low Molecular Weight", J. Biol. Chem., 1945, 161, pgs. 259-268
BG	Goosen, Kuhlreier et al. editors, "Mass Transfer in Immobilized Cell Systems", Cell Encapsulation Technology and Therapeutics, Boston, 1999, pp. 18-28
BH	Hunkeler, "Polymers for Bioartificial Organs", Trends Polym. Sci., 1997, 5, pgs. 286-293
BI	Lahooti et al., Morgan et al. editors, "Methods for Microencapsulation with HEMA-MMA", Tissue Engineering Methods and Protocols, New Jersey, Humana Press, 1999, pgs. 331-348
BJ	Lim et al., "Microencapsulated Islets as Bioartificial Endocrine Pancreas", Science, 1980, 210, pgs. 908-910
BK	Lu et al., "A Novel Cell Encapsulation Method Using Photosensitive Poly(allylamine alpha-cyanocinnamylideneacetate)", Microencapsulation, 2000, 17(2), pgs. 245-251

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BL	Lu et al., "Cell Encapsulation with Alginate and Alpha-Phenoxycinnamylidene-Acetylated Poly(allylamine)", Biotechnol. Bioeng., 2000, 70(5), pgs. 479-483
BM	Parthasarathy et al., "Synthesis of Polymeric Microcapsule Arrays and their use for Enzyme Immobilization", Nature, 1994, 369, pgs. 298-301
BN	Perols et al., "The Potential of Enzyme Entrapment in Konjac Cold-Melting Gel Beads", Enzyme Microbial Technol., 1997, 20(1), pgs. 57-60
BO	Poncelet et al., "Shear Breakage of Nylon Membrane Microcapsules in a Turbine Reactor", Biotechnol. Bioeng., 1989, 33(1), pgs. 95-103
BP	Rahmatullah et al., "Improvements in Determination of Urea Using Diacetylmonoxime Methods with and without Deproteinisation", Clin. Chim. Acta, 1980, 107, pgs. 3-9
BQ	Reddy et al., "Photosensitive Polymers: Synthesis, Characterization, and Photocrosslinking Properties of Polymers with Pendant Alpha, Beta-Unsaturated Ketone Moiety", J. Appl. Poly. Sci., 1998, 70(11), pgs. 2111-2120
BR	Seglen, "Preparation of Isolated Rat Liver Cells", Methods Cell Biol., 1976, 13, pgs. 29-83
BS	Selden et al., "What Keeps Hepatocytes on the Straight and Narrow? Maintaining Differentiated Function in the Liver", Gut, 1999, 44(4), pgs. 443-446
BT	Soon-Shiong et al., "Insulin Independence in a Type-1 Diabetic Patient after Encapsulated Islet Transplantation", Lancet, 1994, 343(8903), pgs. 950-951
BU	Soon-Shiong et al., "Successful Reversal of Spontaneous Diabetes in Dogs by Intraperitoneal Microencapsulated Islets", Transplant., 1992, 54(5), pgs. 769-774

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BV	Soon-Shiong, "Treatment of Type 1 Diabetes Using Encapsulated Islets", Adv. Drug, Delivery Rev., 1999, 35(2-3), pgs. 259-270
BW	Strand et al., "Alginate-Polylysine-Alginate Microcapsules: Effect of Size Reduction on Capsule Properties", J. Microencapsulation, 2002, 19(5), pgs. 615-630
BX	Sun et al., "Microencapsulated Hepatocytes: An in Vitro and in Vivo Study", Biomater. Artif. Cells Art. Org., 1987, 15, pgs. 1483-1496
BY	Thu et al., "Alginate Polycation Microcapsules 1 Interaction Between Alginate and Polycation", Biomaterials, 1996, 17(10), pgs. 1031-1040
BZ	Thu et al., "Alginate Polycation Microcapsules 2 Some Functional Properties", Biomaterials, 1996, 17(11), pgs. 1069-1079
CA	Wells et al., "Microencapsulation of Viable Hepatocytes in HEMA-MMA Microcapsules - A Preliminary Study", Biomaterials, 1993, 14(8), pgs. 615-620

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